

22. (Once Amended) A method for making a spatially-addressable combinatorial array of compounds in solution, the compounds having a common molecular core structure and at least two structural diversity elements, wherein the array comprises at least 500 different compounds, the method comprising:

- (a) selecting reagents suitable for preparing the compounds of the array;
- (b) providing at least 500 spatially-addressable reaction vessels;
- (c) apportioning the reagents into the reaction vessels; and
- (d) concurrently reacting the reagents in the reaction vessels in one of more cycles

under solution phase conditions such that all the compounds of the array are formed in solution;

wherein each reaction vessel contains substantially only one compound,

wherein each compound composing the combinatorial array comprises a same common linear, branched, or cyclic molecular core comprising at least three atoms of carbon, nitrogen, oxygen, phosphorus or sulfur, said core having at least two structural diversity elements attached thereto, and further wherein the compounds composing the array differ from one another by one at least one change in a structural diversity element.

A marked-up version of the above amended claims pursuant to 37 C.F.R. 1.121(c)(1)(ii) is attached for the Examiner's review as Exhibit A.

REMARKS

Claims 10-13, 17-18, 22-24 and 26 appear in this application for the Examiner's review and consideration. The amendments to claims 10-11 and 22 are fully supported by the specification and the claims as originally filed. (Page 27, line 14 to page 29, line 4). Therefore, there is no issue of new matter.

A complete clean listing of pending claims 10-13, 17-18, 22-24 and 26 is attached for the Examiner's convenience as Exhibit B pursuant to 37 C.F.R. 1.121(c)(1)(iii).

The Rejections Under 35 U.S.C. § 103

Claims 10-13, 17-18, 22-24 and 26 stand rejected under 35 U.S.C. § 103(a) as being rendered obvious by Advance ACS Abstract, vol. 8, No. 1, January 1, 1995 ("Pirrung") and Journal of Medicinal Chemistry, vol. 37, No. 9, April 29, 1994 ("Gallop") for the reasons

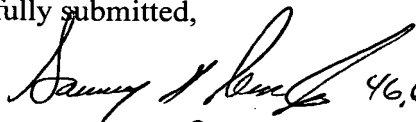
set forth on pages 4 to 6 of the Office Action. Applicants maintain their arguments, which are present in the prosecution history of the present application, as to how the present claims are patentable over Pirrung and Gallop.

However, in an effort to further the prosecution of the present application, claims 10, 11 and 22 and therefore claims 12-13, 17-18 and 23-24, which depend from claims 10, 11 or 22, have been amended to recite that each vessel contains substantially only one compound after the chemical reactions are completed. Conversely, Pirrung and Gallop teach combinatorial libraries wherein multiple compounds are produced within each vessel during the chemical reactions described. One of skill in the art would not have been led by the teachings of Pirrung and Gallop, which describe combinatorial libraries, wherein a mixture of reaction products are produced within each vessel, to design the arrays of the present invention, wherein substantially only one compound is produced in each vessel by the chemical reactions performed on the array.

Therefore, applicants respectfully request that the Examiner withdraw the rejections of claims 10-13, 17-18, 22-24 and 26 under 35 U.S.C. § 103(a).

Applicants thus submit that the entire application is now in condition for allowance, early notice of which would be appreciated. Should the Examiner not agree with the Applicants' position, then a personal or telephonic interview is respectfully requested to discuss any remaining issues and expedite the eventual allowance of the application.

Respectfully submitted,

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Enclosure